

Claims

1. An alkaline protease which has the following physicochemical properties:

(i) Acting pH range

acting over a wide pH range of 4-13 and exhibiting, at a pH of 6-12, 80% or more the activity at the optimum pH;

(ii) Stable pH range

being stable over a pH range of 6-11 when treated at 40°C for 30 minutes;

(iii) Isoelectric point

having an isoelectric point of approximately 8.9-9.1;
and

(iv) Effect of a fatty acid

casein-degrading activity not being inhibited by oleic acid.

2. An alkaline protease according to claim 1, which has an estimated molecular weight of approximately 43,000 as determined by SDS-polyacrylamide gel electrophoresis (SDS-PAGE).

3. An alkaline protease according to claim 1 or 2, which has an amino acid sequence shown by Sequence No. 1 or 2, or such a sequence in which one or more amino acids are deleted, substituted, or added.

4. A gene encoding an alkaline protease according to any one of claims 1 through 3.

5. A microorganism producing an alkaline protease according to any one of claims 1 through 3.

6. A detergent composition containing an alkaline protease according to any one of claims 1 through 3.